

CHHATTISGARH STATE POWER TRANS. CO. LTD.

(A Govt. of Chhattisgarh undertaking) (A successor company of CSEB)

<u>CIN- U40108CT2003SGCO15820</u> / <u>GSTIN-22AADCC5773E1ZX</u>

O/o Chief Engineer (Stores & Purchase)

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No.02-16/SE-I(S&P)/TR-20/S&P/08/ No 1 9 7 2 - //Corrigendum//

Raipur, dtd2 9 JAN 2021

Sub: Tender specification No. TR-20/S&P/08 for procurement of 132 KV Circuit Breaker.

The terms & conditions of NIT No.02-16/SE-I/ TR-20/S&P/08/35/1730 ,Raipur, Dtd: 29.12.2020 for procurement of 132 KV Circuit Breaker shall be read as mentioned below:-

SN	Clause No./ Page No.	Requirement as per technical specification	Amended Requirement
1.	3.2, 3.22 - 13, 3.34	AUXILIARY POWER SUPPLY: Bidder's scope include supply of interconnecting cables, terminal boxes etc.	Accessories like Interconnecting cables, terminal boxes, etc. is not in Supplier scope.
2.	5.0 - 11, 12	Phase to Phase spacing in the Switch Yard I.E. Interpole Spacing For Breaker: 1700 mm Centre to Centre distance between two structure foundation for supporting the complete CB assembly: 2500 mm +100 mm Required ground clearance from the lowest live terminal to structure base place to be erected on concrete plinth in m.m.: 4,600 m.m	Minimum clearances shall be as below: Spacing between legs shall be 1560 mm. Centre to Centre distance between phases shall be 1750 mm & between phases (Live Parts) shall be 1483 mm Required ground clearance shall be 4600 mm including plinth.
3.	5.0 - 24, 25, 26	Corresponding to IEC -56.	Parameters shall conform to IEC 62271-1
4.	6	SPECIAL DUTY REQUIREMENT Cl. 6.1 DUTY CYCLES: , 6.2 TRANSFORMER/ REACTOR CHARGING CURRENT BREAKING CAPACITY 6.3 SHUNT CAPACITOR SWITCHING CAPACITY:	Special duty requirement is not applicable for offered 145kV CB,
5	6.5	Two separate DC sources shall be available one for each trip coil.	Control voltage shall be either 110V DC or 220V DC.
6	7 - e)	Means for pressure relief shall be provided in the gas chamber of circuit breaker to avoid the damages or distortion during occurrence of abnormal pressure increase or shock waves generated by internal electric fault / arcs.	Following point is acceptable: " Pressure relief device, if not required as per the manufacturer's design and if the circuit breaker is capable of safely withstanding the pressure increases under normal and SC conditions, then same can be excluded."
7	7 - g)	Sufficient SF6 gas shall be provided to fill all the circuit breakers installed. In addition to this 20% of the total gas requirement shall be supplied in separate cylinders as spare requirement.	Following is acceptable: " 20% spare SF6 gas in the same cylinder used for first filling can be provided alongwith CB in addition to the spare requirement"
8	7 - h)	Provisions shall be made for attaching an operation analyser after installation at site to record contact travel, speed and making	Following is acceptable: Transducers shall not be in Manufacturer's scope.

	(8322) to unionio	measurement of operation timings, synchronization of contacts in one pole.	man ar
9	8.5.1	Breaker assemblies with bases, support - structure for circuit breaker as well as for control cabinet, central control cabinet and foundation bolts for main structure as well as control cabinet and central control cabinet (except concrete foundations), terminals and operating mechanisms.	If common operating mechanism is offered for the Circuit Breaker and if mounted below pole housing, and not required to be mounted on separate plinth as per manufacturer's design, then same shall be acceptable and support structure for control cabinet & foundation bolts for control cabinet / central control cabinet, central control cabinet remains excluded in such cases.
10	8.5.2	Compressed SF6 gas, pneumatic systems complete including compressors, tanks, pipings, fittings, valves and controls and necessary supports for interpole pipings for pneumatic systems.	Pneumatic systems not applicable for the offered CB
Maile and	8.5.3	One central control cabinet for each breaker and one control box with all the required electrical devices mounted therein and the necessary terminal blocks for termination of inter-pole wiring. The necessary interpole cables shall be in the scope of supplier and cabling at site shall be done by the Owner based on the schematic wiring diagram and termination schedule to be supplied by the Bidder.	Interpole cabling for Mechanically Gang operated CB's not applicable.
12	8.5.4	Instruments, gauges and leakage detector for SF6 gas pressures pneumatic pressure supervision	SF6 Gas Leakage detector is not applicable for this tender
13	8.5.7, 8.27.3	All breakers shall be supplied with terminal connectors having double nut GI and double set of washers for firm connection. Terminal connector shall be tested for short circuit current capability test, temperature rise test, corona test etc.	Terminal connectors shall be suitable for rigid Single ACSR zebra conductors. Routine test reports of Terminal connectors to be provided during detail engineering.
14	8.9.5	Any device provided for voltage grading to damp oscillations	Device for voltage grading to damp oscillations are not applicable for the offered CB
15	8.9.6	The temperature shall not exceed that indicated in IEC-56 under specified ambient conditions	Temperature rise shall be as per latest edition of IEC 62271-100, instead of IEC - 56
16	8.9.7	The gap between the open contacts shall be such that it can withstand atleast the rated phase to ground voltage continuously at zero gauge pressure of SF6 gas due to its leakage.	The gap between the open contacts shall be such that it can withstand atleast the rated phase to ground voltage for 8 hours at zero gauge pressure of SF6 gas. The breaker should be able to withstand all dielectric stresses imposed on it in open condition at lock out pressure Continuously (i.e. 2 p.u. across the breaker continuously, for validation of which a power frequency dielectric with stand test

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		curried by serial 1/10/2015 grade PVC insulated timed copyer stranded continuous	conducted for a duration of at least 15 minutes shall be submitted)
17	8.12	There shall be provision to add more auxiliary switches at a later date and to convert the "normally open" contacts to the "normally closed" type and vice versa. Minimum two auxiliary switch set (NO & NC contact) be provided which should operate independently.	Fixed auxiliary contacts are acceptable subject to total 6NO &6NC is provided as spares for Purchaser's use.
18	8.17.7	The auxiliary switch of the breaker be preferably positively driven by the breaker operating rod and where due to construction features, same is not possible a plug in device shall be provided to simulate the opening and closing operations of circuit breaker for the purpose of testing control circuits.	Plug-in device is not applicable.
19	8.19.1 - xiii)	The number of terminals provided shall be adequate enough to wire out all contacts and control circuits plus 20% spare terminals for owner's use. The terminals provided should be stud type with eye type lugs only. Screw type terminals are not acceptable.	Please consider 10% additional spare terminal block instead of 20% spare terminals.
20	8.19.1 - d)	Special tools needed for specific maintenance work.	Special tools and tackles, if required, to be provided.,
21	8.22	The operating mechanism housing, cabinets, dead tanks, support structure etc shall be provided with two separate earthing terminals suitable for bolted connection to 50 x 8 mm MS flat to be provided by the owner for connection to station earth mat.	Following point is acceptable: "In the offered CB, if the maximum supply voltage of auxiliaries in control cabinet is 240VAC.one earthing terminal with each cabinet is acceptable."
22	8.23.1	Inductive / Capacitive current Aux. DC Supply voltage, Out of phase Breaking current, AC / DC Supply	Aux. DC Supply voltage, Out of phase Breaking current, Inductive / Capacitive current if not in Rating plate shall form part of the documentation
23	8.23.2	Breaker wiring diagram should be engraved on the back side of the front door of the panel.	Breaker wiring diagram in the form of sticker provided inside the cabinet is acceptable
24	8.25	The incoming power supply isolating switch, operating handle shall be interlocked with the control cabinet door so as to prevent opening of door when main switch is closed. Device for bypassing the door interlock shall also be provided.	Following point is acceptable: " Operating handle interlocked with control cabinet door or bypass device for interlocking is not applicable if door lock is provided "
25	8.26	Fuses	Fuses are not applicable if MCB's are provided
26	8.28 - 6,7	Single phase preventer relay, Mini starters with no volt coil for motors	Single phase preventer relay, Mini starters with no volt coil not required for motors with less than 2KW.
27	8.28 - 8,10	All necessary cable terminating accessories such as glands, crimp type tinned copper lugs etc. for power as well as control cables shall be included in Bidder's scope of supply. Wiring for all control circuits shall be	Power cables are not in Manufacturer's scope.

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28	9.3	All vessels and accessories which operate under pressure	Vessels not applicable
29	9.7	The purchaser reserves the right for carrying out any other tests of a reasonable nature at the works of the supplier/laboratory or at any other recognized laboratory/ research institute in addition to the above mentioned type, acceptance and routine tests at the cost of the purchaser to satisfy that the material complies with the intent of this specification	Following point is acceptable: " Routine tests shall be conducted at factory.
30	11.2 - e)	Structural drawing, design calculations and loading data for support structures.	Structural drawing, design load calculations, foundation drilling plan are not applicable
31	13	SUPERVISION OF ERECTION & COMMISSIONING:	ETC is not in Bidder's scope. Supervision of commissioning to be quoted in the annexure and same shall be not form part of price bid evaluation
32	14	As stated in general conditions for supply of the materials, the successful bidder will be required to grant facilities for training of purchaser"s engineers, if so desired. The number of engineers may be 3 to 4.	Training of engineers is not in Bidder's scope
	14.1 - Annex II	The design of gas filling equipments, particularly adopoter system on gas cyliner side and on circuit breakers side has been found to be different in respect of various makesand various type of circuit breakers of same make while design of adaptor on breaker side may be the same, a universal type arrangement for the adaptor to be fitted with the gas cylinder will have to be developed so that with the universal adaptor it is possible for CSPTCL	If Manufacturer has supplied gas filling adapter to CSPTCL in their earlier supplies, then same is acceptable.

All other terms and conditions of the tender no. TR-20/S&P/08 shall remain unchanged & applicable .

Chief Engineer (S&P) CSPTCL,Raipur

Copy to:-

1. The CE (EITC), CSPDCL, Raipur – Please arrange to place/display the aforesaid corrigendum of tender TR-20/S&P/03 on the CSPTCL's website.